

ABSTRACT OF THE DISCLOSURE

A method, apparatus, and article of manufacture for optimizing a query in a computer system. During compilation of the query, a GROUP BY clause with one or more GROUPING SETS, ROLLUP or CUBE operations is maintained in its original form until 5 after query rewrite. The GROUP BY clause with the GROUPING SETS, ROLLUP or CUBE operations is then translated into a plurality of levels having one or more grouping sets. After compilation of the query, a grouping sets sequence is dynamically determined for the GROUP BY clause with the GROUPING SETS, ROLLUP or CUBE operations based on intermediate grouping sets, in order to optimize the grouping sets sequence. The execution 10 of the grouping sets sequence is optimized by selecting a smallest grouping set from a previous one of the levels as an input to a grouping set on a next one of the levels. Finally, a UNION ALL operation is performed on the grouping sets.

"Express Mail" mailing label number EV329956232US
Date of Deposit JULY 29, 2003
I hereby certify that this paper or fee is being de-
posited with the United States Postal Service "Express Mail"
Post Office to Addressee's service under 37 CFR 1.10 on
the date indicated above and is addressed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
Suzie McCleave
(printed name)
Suzie
(signature)